REMARKS

Applicants appreciate the Examiner's thorough consideration provided in the present application. Claims 1-13 are now present in the application. Claim 1 has been amended. Claim 1 is independent. Reconsideration of this application, as amended, is respectfully requested.

Claim Rejections Under 35 U.S.C. §§ 102 and 103

Claims 1-6 and 8-13 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Khosravi, U.S. Patent No. 7,200,146. Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Khosravi in view of Oprescu, U.S. Patent No. 5,784,557. These rejections are respectfully traversed.

Complete discussions of the Examiner's rejections are set forth in the Office Action, and are not repeated herein.

Without conceding to the propriety of the Examiner's rejection, but merely to timely advance the prosecution of the application, as the Examiner will note, independent claim 1 has been amended to more clearly define the present invention over the references relied on by the Examiner.

In particular, independent claim 1 now recites "A method for *altering of a network routing in a network with flow control on the link level* ***without dropping data packets***, said altering of the network routing is the transition from a first routing function R_{old}, defining an established connection between a plurality of communication input ports $I_1,..,I_n$ and output ports $O_1,..,O_m$, in a network element, to a second routing function R_{new}, defining an new connection

between the said input and output ports, wherein said transition is executed by the network element for transmitting and receiving data packets, said method comprising: (1) for each input port Ii, performing the following steps: (1a) applying the first routing function R_{old} for the input port, (1b) receiving a token on an input port I_i, *(1c) stopping forwarding data packets from port I_i arriving after said token*, (1d) applying the second routing function R_{new} for the input port I_i, *(1e) starting forwarding data packets to every output port O_j associated with said input port I_i according to the second routing function R_{new},* ***only if said output port O_j has transmitted the token***, (2) for each output port O_j, performing the following steps; (2a) determining if the token has been received on all input ports I_i associated with the output port O_j according to the first routing function R_{old}, (2b) *transmitting the token on the output port O_j when the token has been received on all said associated input ports I_i.*" Support for these amendment may be found at least at, for example, Fig. 6 and the corresponding disclosure of the present invention as originally filed. Thus, no new matter has been added. Applicants respectfully submit that the combination of steps set forth in claim 1 is not disclosed or suggested by the references relied on by the Examiner.

Specifically, the present invention is directed to a method for ***altering of a network routing in a network with flow control on the link level without dropping data packets***, and the altering of the network routing is the transition from a first routing function R_{old}, defining an established connection between a plurality of communication input ports $I_1,..,I_n$ and output ports $O_1,..,O_m$, in a network element, to a second routing function R_{new}, defining an new connection between the said input and output ports, where the transition is executed by the network element for transmitting and receiving data packets.

The Examiner still insists that letting packet communication continue is deadlock free. Applicants respectfully disagree and submit that this is the Examiner's own interpretation and cannot be used as a basis to interpret the present invention and Khosravi. As explained in the last reply, a deadlock situation in network routing is a situation that occurs when a set of packets cannot proceed in the network. This situation can occur in networks that do not drop data packets, *i.e.*, in networks with flow control on the link level, (the description of the network deadlock is not repeated herein). As the Examiner is aware, claim 1 is amended to more clearly clarify the present invention. In particular, the present invention provides a deadlock free transition that allows a network to alter its routing strategy from a first routing function R_{old} to a second routing function R_{new} while the network is up and running without dropping data packets. On the contrary, Khosravi provided a method of transferring a packet through the use of a switch-label which indicates an address within the router of another components with in the router that will transmit the packet to a destination outside the router. In fact, Khosravi discloses a method for reconfiguring internal FEs (switches) in an IP router as a consequence of external IP-route changes. Applicants respectfully submit that Khosravi has nothing to do with the problem the present invention solved. It is noted that the essential objective of Khosravi is not the same with the present invention, and the two cases uses different ways to solve different problems.

In addition, as set forth in claim 1, "the present invention is directed to a method for *altering of a network routing in a network with flow control on the link level without dropping data packets*." The Examiner asserts on page 3 of the Office Action that Col. 8, lines 31-33 and

Fig. 6 of Khosravi teaches that altering routing table will avoid deadlocks and change connections between input and output. Applicants respectfully disagree and submit that this conclusory statement is merely the Examiner's owner interpretation and there is no disclosure in Khosravi supporting this assertion. In fact, It is noted that since **the IP networks disclosed may drop packets in Khosravi, deadlock is not even an issue for Khosravi**. Actually, referring to Col. 8, lines 34-39, the step of altering the routing table 630 occurs when an egress-port not present in the FE, and the step of adding a switch-label corresponding to an actual egress interface to the routing table is provided. By contrast, the method of the present invention is the basis for deadlock freedom and in-order delivery of data packets. The result of the implementation of the method set forth in claim 1 is firstly that data packets are sent either according to R_{old}, or R_{new} , i.e. no packets are routed according to R_{old}, in one network element and R_{new} in another. Secondly the method provides that for each link between input ports and output ports, data packets are sent solely according to R_{old} before the link starts sending data packets solely according to R_{new}. It is clear that Khosravi has nothing to do with these feature set forth in the present invention. "The identical invention must be shown in as complete detail as is contained in the ... claim." (MPEP2131.02). Applicants respectfully submit that it is impossible for Khosravi to anticipate claim 1 of the present invention.

Further, amended claim 1 now includes the step of (1c) stopping forwarding data packets from port I_i arriving after said token, (1d) applying the second routing function R_{new} for the input port I_i, and (1e) starting forwarding data packets to every output port O_j associated with said input port I_i according to the second routing function R_{new}, only if said output port O_j

has transmitted the token. Applicants respectfully submit that Khosravi at least fails to teaches the features set forth in claim 1 as emphasized above. The Examiner asserts that Col. 8, lines 16-18, 34-38 and Col. 9, lines 39-44 teaches those steps set forth in claim 1; however, Applicants respectfully disagree and submit that these Examiner's asserted references in Khosravi are quoting out of context and are merely chosen or picked for a given position. In fact, each specifical feature recited in each step of claim 1 cannot read on the references in as complete detail as is set forth in claim 1.

Therefore, Applicants respectfully submit that neither of the references utilized by the Examiner individually or in combination teaches or suggests the limitations of amended independent claim 1, and thus claim 1 clearly defines over the teachings of the references relied on by the Examiner.

In addition, claims 2-13 depend, either directly or indirectly, from independent claim 1, and are therefore allowable based on their respective dependence from independent claim 1, which is believed to be allowable.

In view of the above amendments to the claims and remarks, Applicant respectfully submits that claims 1-13 clearly define the present invention over the references relied on by the Examiner. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. §§ 102 and 103 are respectfully requested.

CONCLUSION

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue. Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicants respectfully petition for a one (1) month extension of time for filing a response in connection with the present application.

In the event there are any matters remaining in this application, the Examiner is invited to contact Paul C. Lewis, Registration No. 43,368 at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§ 1.16 or 1.147; particularly, extension of time fees.

Dated: December 8, 2008

Respectfully submitted,

By _____ #28380

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